

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

International Application No.: PCT/NO00/00200
 International Filing Date: 8 June 2000
 Applicants: Geir Olve Skeie et al.
 Serial No: 10/009,013
 TITLE: Detection of Ryanodine Receptor Antibodies

Commissioner for Patents
 P.O. Box 1450
 Alexandria, VA 2213-1450

RESPONSE TO NOTIFICATION OF DEFECTIVE RESPONSE

Sir:

In response to the Notification of Defective Response dated October 22, 2004 enclosed are the following:

Copy of Notification of Defective Response
 A substitute computer readable form of the "Sequence Listing"
 A diskette of the "Sequence Listing"
 An Amendment directing entry of the substitute paper copy of the "Sequence Listing" into the specification.

A statement that the contents of the paper copy of the Sequence Listing contains a correction of <213> and otherwise includes no new matter.

FIRST CLASS CERTIFICATE

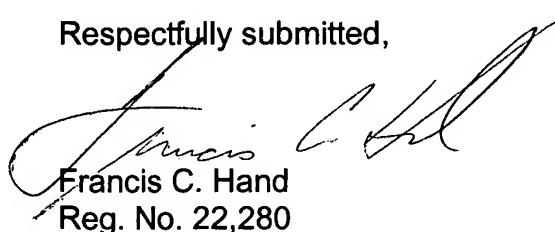
I hereby certify that this correspondence is being deposited today with the U.S. Postal Service as First Class Mail in an envelope addressed to:

Commissioner for Patents
 P.O. Box 1450
 Alexandria, VA 22313-1450

Francis C. Hand, Esq.

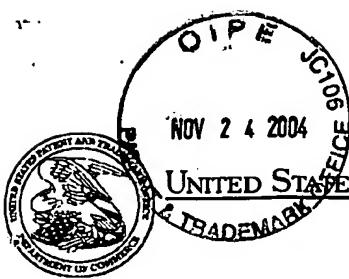
11-22-2004
 Date

Respectfully submitted,



Francis C. Hand
 Reg. No. 22,280

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 CECCHI, STEWART & OLSTEIN
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UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
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U.S. APPLICATION NUMBER NO.	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
10/009,013	Geir Olve Skeie	53550.40

INTERNATIONAL APPLICATION NO.

PCT/NO00/00200

I.A. FILING DATE	PRIORITY DATE
06/08/2000	06/08/1999

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Carella Byme Gilfillan Cecchi Stewart & Olstein
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Roseland, NJ 07068

CONFIRMATION NO. 2173
371 FORMALITIES LETTER



OC000000014167868

Date Mailed: 10/22/2004

NOTIFICATION OF DEFECTIVE RESPONSE

The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as an Elected Office (37 CFR 1.495):

- Indication of Small Entity Status
- Priority Document
- Copy of the International Application filed on 12/06/2001
- Copy of the International Search Report filed on 12/06/2001
- Copy of IPE Report filed on 12/06/2001
- Biochemical Sequence Diskette filed on 06/17/2002
- Oath or Declaration filed on 08/19/2004
- Biochemical Sequence Listing filed on 08/19/2004
- Request for Immediate Examination filed on 12/06/2001
- Copy of references cited in ISR filed on 12/06/2001
- U.S. Basic National Fees filed on 12/06/2001
- Priority Documents filed on 12/06/2001

DATE RECEIVED:	10/24/04
DATE ENTERED:	10/24/04
1)	Response Due
2)	11-22-04
3)	
4)	
5)	
6)	
7)	
8)	
9)	
10)	NO EXTENSIONS ALLOWED
11)	SEARCHED BY: PTM
12)	DATE: 10/25

Applicant's response filed 08/19/2004 is hereby acknowledged. The following requirements set forth in the NOTIFICATION of MISSING REQUIREMENTS mailed 04/22/2004 have not been completed.

The following items **MUST** be furnished within the period set forth below:

- The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 CFR 1.821-1.825 for the following reason(s):
 - A copy of the "Sequence Listing" in computer readable form has been submitted. The content of the computer readable form, however, does not comply with the requirements of Annex C of the Administrative Instructions and 37 CFR 1.822 and/or 1.832, as indicated on the attached marked-up copy of the "Raw Sequence Listing."
- **APPLICANT MUST PROVIDE:**
 - An initial or substitute computer readable form (CRF) of the "Sequence Listing."
 - An initial or substitute paper copy or compact disc of the "Sequence Listing," as well as an amendment directing its entry into the specification.

- A statement that the contents of the paper or compact disc and the computer readable form are the same and, where applicable, include no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b) or 1.825(d).
- For questions regarding compliance to 37 CFR 1.821-1.825 requirements, please contact:
 - For Rules Interpretation, call (703) 308-4216
 - To Purchase PatentIn Software, call (703) 306-2600
 - For PatentIn Software Program Help, call (703) 306-4119 or e-mail at patin21help@uspto.gov or patin3help@uspto.gov

Applicant is required to complete the response within a time limit of ONE MONTH from the date of this Notification or within the time remaining in the response set forth in the Notification of Missing Requirements, whichever is the longer. No extension of this time limit may be granted under 37 CFR 1.136, but the period for response set in the Notification of Missing Requirements may be extended under 37 CFR 1.136(a).

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

*A copy of this notice **MUST** be returned with the response.*

KAREN M WILLIAMS

Telephone: (703) 305-3688

PART 1 - ATTORNEY/APPLICANT COPY

U.S. APPLICATION NUMBER NO.	INTERNATIONAL APPLICATION NO.	ATTY. DOCKET NO.
10/009,013	PCT/NO00/00200	53550.40

FORM PCT/DO/EO/916 (371 Formalities Notice)

BIOTECHNOLOGY
SYSTEMS
BRANCH



RAW SEQUENCE LISTING
ERROR REPORT

1 DT03 Rec'd PCT/PTO 24 NOV 2004.

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/009,013 B
Source: PCT/10
Date Processed by STIC: 9/13/04

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.2 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm>), EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 06/05/04): U.S. Patent and Trademark Office, 220 20th Street S., Customer Window, Mail Stop Sequence, Crystal Plaza Two, Lobby, Room 1B03, Arlington, VA 22202

Revised 05/17/04

Raw Sequence Listing Error Summary

ERROR DETECTED

SUGGESTED CORRECTION

SERIAL NUMBER: 10/009,013B

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

1 Wrapped Nucleic
Wrapped Aminos The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."

2 Invalid Line Length The rules require that a line not exceed 72 characters in length. This includes white spaces.

3 Misaligned Amino
Numbering The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.

4 Non-ASCII The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.

5 Variable Length Sequence(s) _____ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.

6 PatentIn 2.0
"bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.

7 Skipped Sequences
(OLD RULES) Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
(i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped

Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.

8 Skipped Sequences
(NEW RULES) Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence.
<210> sequence id number
<400> sequence id number
000

9 Use of n's or Xaa's
(NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

10 Invalid <213>
Response Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence

11 Use of <220>
FYI → Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses.
Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)

12 PatentIn 2.0
"bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

13 Misuse of n/Xaa "n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid



PCT

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/009,013B

DATE: 09/13/2004

TIME: 09:43:16

Input Set : A:\PCT,NO00,00200.ST25.txt
 Output Set: N:\CRF4\09132004\J009013B.raw

3 <110> APPLICANT: Skeie, Geir Olve
 5 <120> TITLE OF INVENTION: Detection of Ryanodine Receptor Antibodies
 7 <130> FILE REFERENCE: PCT/NO00/00200
 9 <140> CURRENT APPLICATION NUMBER: US 10/009,013B
 C--> 10 <141> CURRENT FILING DATE: 2001-12-06
 12 <160> NUMBER OF SEQ ID NOS: 2
 14 <170> SOFTWARE: PatentIn version 3.3
 16 <210> SEQ ID NO: 1
 17 <211> LENGTH: 374 *see item 10 on Error Summary Sheet*
 18 <212> TYPE: PRT
 19 <213> ORGANISM: Protein for the detection of ryanodine receptor antibodies
 21 <400> SEQUENCE: 1

23 Glu Phe Lys Phe Leu Pro Pro Pro Gly Tyr Ala Pro Cys His Glu Ala
 24 1 5 10 15
 27 Val Leu Pro Arg Glu Arg Leu Arg Leu Glu Pro Ile Lys Glu Tyr Arg
 28 20 25 30
 31 Arg Glu Gly Pro Arg Gly Pro His Leu Val Gly Pro Ser Arg Cys Leu
 32 35 40 45
 35 Ser His Thr Asp Phe Val Pro Cys Pro Val Asp Thr Val Gln Ile Val
 36 50 55 60
 39 Leu Pro Pro His Leu Glu Arg Ile Arg Glu Lys Leu Ala Glu Asn Ile
 40 65 70 75 80
 43 His Glu Leu Trp Ala Leu Thr Arg Ile Glu Gln Gly Trp Thr Tyr Gly
 44 85 90 95
 47 Pro Val Arg Asp Asp Asn Lys Arg Leu His Pro Cys Leu Val Asn Phe
 48 100 105 110
 51 His Ser Leu Pro Glu Pro Glu Arg Asn Tyr Asn Leu Gln Met Ser Gly
 52 115 120 125
 55 Glu Thr Leu Lys Thr Leu Leu Ala Leu Gly Cys His Val Gly Met Ala
 56 130 135 140
 59 Asp Glu Lys Ala Glu Asp Asn Leu Lys Lys Thr Lys Leu Pro Lys Thr
 60 145 150 155 160
 63 Tyr Met Met Ser Asn Gly Tyr Lys Pro Ala Pro Leu Asp Leu Ser His
 64 165 170 175
 67 Val Arg Leu Thr Pro Ala Gln Thr Thr Leu Val Asp Arg Leu Ala Glu
 68 180 185 190
 71 Asn Gly His Asn Val Trp Ala Arg Asp Arg Val Ala Gln Gly Trp Ser
 72 195 200 205
 75 Tyr Ser Ala Val Gln Asp Ile Pro Ala Arg Arg Asn Pro Arg Leu Val
 76 210 215 220
 79 Pro Tyr Arg Leu Leu Asp Glu Ala Thr Lys Arg Ser Asn Arg Asp Ser
 80 225 230 235 240
 83 Leu Cys Gln Ala Val Arg Thr Leu Leu Gly Tyr Asn Ile Glu

My 1/2
Does Not Comply
Corrected Diskette Needed

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/009,013B

DATE: 09/13/2004
TIME: 09:43:16

Input Set : A:\PCT,N000,00200.ST25.txt
Output Set: N:\CRF4\09132004\J009013B.raw

84	245	250	255	
87	Pro Pro Asp Gln Glu Pro Ser Gln Val Glu Asn Gln Ser Arg Trp Asp			
88	260	265	270	
91	Arg Val Arg Ile Phe Arg Ala Glu Lys Ser Tyr Thr Val Gln Ser Gly			
92	275	280	285	
95	Arg Trp Tyr Phe Glu Phe Glu Ala Val Thr Thr Gly Glu Met Arg Val			
96	290	295	300	
99	Gly Trp Ala Arg Pro Glu Leu Arg Pro Asp Val Glu Leu Gly Ala Asp			
100	305	310	315	320
103	Glu Leu Ala Tyr Val Phe Asn Gly His Arg Gly Gln Arg Trp His Leu			
104	325	330	335	
107	Gly Ser Glu Pro Phe Gly Arg Pro Trp Gln Ser Gly Asp Val Val Gly			
108	340	345	350	
111	Cys Met Ile Asp Leu Thr Glu Asn Thr Ile Ile Phe Thr Leu Asn Gly			
112	355	360	365	
115	Glu Val Leu Met Ser Asp			
116	370			
119	<210> SEQ ID NO: 2	<i>see item 10</i>		
120	<211> LENGTH: 348			
121	<212> TYPE: PRT			
122	<213> ORGANISM: <u>Protein for the detection of ryanodine receptor antibodies</u>			
124	<400> SEQUENCE: 2			
126	Arg Gly Arg Ser Leu Thr Lys Ala Gln Arg Asp Val Ile Glu Asp Cys			
127	1	5	10	15
130	Leu Met Ala Leu Cys Arg Tyr Ile Arg Pro Ser Met Leu Gln His Leu			
131	20	25	30	
134	Leu Arg Arg Leu Val Phe Asp Val Pro Ile Leu Asn Glu Phe Ala Lys			
135	35	40	45	
138	Met Pro Leu Lys Leu Leu Thr Asn His Tyr Glu Arg Cys Trp Lys Tyr			
139	50	55	60	
142	Tyr Cys Leu Pro Thr Gly Trp Ala Asn Phe Gly Val Thr Ser Glu Glu			
143	65	70	75	80
146	Glu Leu His Leu Thr Arg Lys Leu Phe Trp Gly Ile Phe Asp Ser Leu			
147	85	90	95	
150	Ala His Lys Lys Tyr Asp Gln Glu Leu Tyr Arg Met Ala Met Pro Cys			
151	100	105	110	
154	Leu Cys Ala Ile Ala Gly Ala Leu Pro Pro Asp Tyr Val Asp Ala Ser			
155	115	120	125	
158	Tyr Ser Ser Lys Ala Glu Lys Lys Ala Thr Val Asp Ala Glu Gly Asn			
159	130	135	140	
162	Phe Asp Pro Arg Pro Val Glu Thr Leu Asn Val Ile Ile Pro Glu Lys			
163	145	150	155	160
166	Leu Asp Ser Phe Ile Asn Lys Phe Ala Glu Tyr Thr His Glu Lys Trp			
167	165	170	175	
170	Ala Phe Asp Lys Ile Gln Asn Asn Trp Ser Tyr Gly Glu Asn Val Asp			
171	180	185	190	
174	Glu Glu Leu Lys Thr His Pro Met Leu Arg Pro Tyr Lys Thr Phe Ser			
175	195	200	205	
178	Glu Lys Asp Lys Glu Ile Tyr Arg Trp Pro Ile Lys Glu Ser Leu Lys			

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/009,013B

DATE: 09/13/2004

TIME: 09:43:16

Input Set : A:\PCT,NO00,00200.ST25.txt
Output Set: N:\CRF4\09132004\J009013B.raw

179	210	215	220													
182	Ala	Met	Ile	Ala	Trp	Glu	Trp	Thr	Ile	Glu	Lys	Ala	Arg	Glu	Gly	Glu
183	225				230				235						240	
186	Glu	Glu	Arg	Thr	Glu	Lys	Lys	Lys	Thr	Arg	Lys	Ile	Ser	Gln	Thr	Ala
187					245				250						255	
190	Gln	Thr	Tyr	Asp	Pro	Arg	Glu	Gly	Tyr	Asn	Pro	Gln	Pro	Pro	Asp	Leu
191					260				265						270	
194	Ser	Gly	Val	Thr	Leu	Ser	Arg	Glu	Leu	Gln	Ala	Met	Ala	Glu	Gln	Leu
195					275				280						285	
198	Ala	Glu	Asn	Tyr	His	Asn	Thr	Trp	Gly	Arg	Lys	Lys	Gln	Glu	Leu	
199					290				295						300	
202	Glu	Ala	Lys	Gly	Gly	Gly	Thr	His	Pro	Leu	Leu	Val	Pro	Tyr	Asp	Thr
203					305				310				315		320	
206	Leu	Thr	Ala	Lys	Glu	Lys	Ala	Arg	Asp	Arg	Glu	Lys	Ala	Gln	Glu	Leu
207					325				330						335	
210	Leu	Lys	Phe	Leu	Gln	Met	Asn	Gly	Tyr	Ala	Val	Thr				
211					340				345							

VERIFICATION SUMMARY
PATENT APPLICATION: US/10/009,013B

DATE: 09/13/2004
TIME: 09:43:17

Input Set : A:\PCT,NO00,00200.ST25.txt
Output Set: N:\CRF4\09132004\J009013B.raw

L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date

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